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S/S

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/877,728 06/18/97 OKAWARA

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005514 LM02/0802
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EXAMINER

CHRISTENSEN, A

ART UNIT	PAPER NUMBER
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2712

DATE MAILED: 08/02/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/877,728	Applicant Okawara
	Examiner Andy Christensen	Group Art Unit 2712

Responsive to communication(s) filed on _____.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-50 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-50 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. The drawings are objected to. Figures 1-5, 12-13, 14A and 14B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
2. Applicant is advised that should claim 47 be found allowable, claim 50 will be objected to under 37 CFR 1.75 as being a duplicate thereof. When two claims in an application are duplicates it is proper after allowing one claim to object to the other as being a duplicate of the allowed claim. See MPEP 706.03(k).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 1-7 and 11-13 are rejected under 35 USC 102(b) as being anticipated by Kawanami (U.S. Patent No. 5,278,601).

Regarding Claim 1, Kawanami discloses an image pickup apparatus comprising a ring member (51) for driving a lens (52), a detection means (55,56) for detecting a change amount of rotation of the ring member, a control means (59) for performing motion/stop control of a lens group along an optical axis in accordance with a detection result by the detection means, and

motion direction setting means (63) for allowing a user to set as desired the motion direction of the lens group relative to the rotation direction of ring member.

Regarding Claim 2, Kawanami discloses that the lens group includes a magnification lens (52) and the motion direction setting means comprises an operation switch (63) capable of being operated by an user, and a change means (64, 59) for changing the motion direction of the lens group relative to the rotation direction of the ring member in accordance with the operation of the operation switch (Column 5, Lines 20-65).

Regarding Claim 3, Kawanami discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Column 5, Line 25).

Regarding Claim 4, Kawanami discloses that ring member is disposed concentrically about a optical axis of the lens group (Figure 5).

Regarding Claim 5, Kawanami discloses that the lens group includes a magnification lens (52) and the motion direction setting means comprises a memory means (64) for storing motion direction information of the lens group relative to the rotation of the ring member, the motion direction being given by a user (switch 63), and a change means (64, 59) for changing the motion direction of lens group in accordance with the motion direction information stored in the memory

means.

Regarding Claims 6 and 11, Kawanami discloses that a lens unit is made removable relative to the main body of the image pickup apparatus (Column 5, Line 25).

Regarding Claims 7, 12 and 13, Kawanami discloses that ring member is disposed concentrically about an optical axis of the lens group (Figure 5).

4. Claims 14-37, 39-41 and 48 are rejected under 35 USC 102(e) as being anticipated by Sato et al. (U.S. Patent No. 5,648,836).

Regarding Claim 14, Sato et al. disclose an image pickup apparatus wherein a detection means (2) detects a change amount of rotation of a ring member (1) for driving a lens, and a control means (5) provided with a plurality of characteristics (Column 5, Lines 10-19) for determining a correlation between an output of the detection means and a motion of a magnification lens, controls motion/stop of at least the magnification lens along an optical axis in accordance with an output of the detection means.

Regarding Claim 15, Sato et al. disclose that the plurality of characteristics of the control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to be constant (Column 5, Lines 37-43) and a second

characteristic for controlling a motion speed of the magnification lens to be variable in accordance with a rotation speed of the ring member (Column 5, Line 62 - Column 6, Line 10).

Regarding Claim 16, Sato et al. disclose that the plurality of characteristics of the control means include a first characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a first predetermined amount and a second characteristic for controlling a motion amount of the magnification lens per unit rotation of the ring member to become a second predetermined amount different from the first predetermined amount (Column 6, Lines 49-63).

As to Claim 17, see Examiner's comments regarding Claim 14 and note that Sato et al. disclose that the plurality of characteristics are settable by a user (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

As to Claim 18, see Examiner's comments regarding Claim 15.

As to Claim 19, Sato et al. disclose that the characteristic of the control means is changed in accordance with the state of an operation switch capable of being operated upon by a user (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

Regarding Claim 20, Sato et al. disclose that the characteristic of the control means is changed in accordance with information of the characteristic of the control means set by a user (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

Regarding Claim 21, Sato et al. disclose that the characteristic of the control means is changed in accordance with a photographing state (Column 8, Lines 31-46).

As to Claim 22, see Examiner's comments regarding Claim 16.

As to Claim 23, see Examiner's comments regarding Claim 19.

As to Claim 24, see Examiner's comments regarding Claim 20.

AS to Claim 25, see Examiner's comments regarding Claim 21.

As to Claim 26, see Examiner's comments regarding Claim 14 and note that Sato et al. disclose the ring member as disposed concentrically about a lens optical axis (Figure 1).

As to Claim 27, see Examiner's comments regarding Claim 15.

As to Claim 28, see Examiner's comments regarding Claim 16.

As to Claim 29, see Examiner's comments regarding Claim 26 and note that Sato et al. disclose a setting means for a user to set the characteristics of the control means (Column 5, Lines

10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

As to Claim 30, see Examiner's comments regarding Claim 15.

Regarding Claim 31, Sato et al. disclose an operation switch capable of being operated upon by a user and a change means for changing the characteristic of the control means in accordance with a state of the operation switch (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

Regarding Claim 32, Sato et al. disclose that the change means changes the characteristic of the control means in accordance with information of the characteristic of the control means set by a user (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

Regarding Claim 33, Sato et al. disclose that the change means changes the characteristic of the control means in accordance with a photographing state (Column 8, Lines 31-46).

As to Claim 34, see Examiner's comments regarding Claim 16.

As to Claim 35, see Examiner's comments regarding Claim 31.

As to Claim 36, see Examiner's comments regarding Claim 32.

As to Claim 37, see Examiner's comments regarding Claim 33.

Regarding Claim 39, see Examiner's comments regarding Claim 14 and note that Sato et al. disclose a storage device storing programs comprising the recited detection and control modules (CPU 5).

Regarding Claims 40 and 41, Sato et al. disclose that the ring member is disposed concentrically about the lens group (Figure 1).

Regarding Claim 48, Sato et al. disclose an image pickup apparatus comprising a ring member (1) disposed concentrically about a lens optical axis (Figure 1), a detection means (2) for detecting a change amount of rotation of the ring member, a control means for determining motion direction and speed of a magnification lens group in accordance with an output from the detection means and performing motion/stop control of the magnification lens group along the optical axis (Column 4, Lines 25-41), and a change means for changing a response characteristic of the motion of the magnification lens group relative to a detection result of the detection means in accordance with a photographing state (Column 5, Lines 10-19; Column 7, Lines 19-26; Column 8, Lines 31-46).

5. Claims 44-47 and 50 are rejected under 35 USC 102(b) as being anticipated by Takahashi (U.S. Patent No. 5,159,370).

Regarding Claim 44, Takahashi discloses an image pickup apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detection means for detecting a change amount of rotation of the ring member (Column 9, Lines 1-14), a control means for determining motion direction and speed of a magnification lens group in accordance with an output of the detection means and performing motion/stop control of the magnification lens group along the optical axis (Column 9, Lines 15-49), and a change means for changing a response characteristic of the motion of the magnification lens group relative to a detection result of the detection means between a motion start time state and a motion state of the magnification lens group (Column 9, Lines 21-29).

Regarding Claim 45, Takahashi discloses that the lens group is removably and exchangeably mounted on a main body of the image pickup apparatus (Column 2, Line 46).

Regarding Claim 46, Takahashi discloses that the change means changes a reference value of a change amount of rotation of the ring member for permitting/inhibiting the motion of the magnification lens group (Column 10, Lines 1-11).

Regarding Claims 47 and 50, Takahashi discloses that the change means changes the motion speed of the magnification lens group relative to an output of the detection means (Column 9, Lines 21-29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-10 are rejected under 35 USC 103(a) as being unpatentable over Kawanami in view of Shimizu (U.S. Patent No. 5,485,200).

Regarding Claim 8, Kawanami discloses a menu function control unit for controlling a character generator in accordance with the operation state of a menu setting means and displaying a predetermined menu on a display screen of a display means (Column 3, Lines 15-17) but does not disclose that the menu setting means is operated upon by a user and does not disclose a setting means for selecting a desired setting time.

However Shimizu discloses using a menu displayed on a display screen as a setting means to permit a user of a camera to operate thereupon to select various camera operating conditions from among a plurality of items displayed on a predetermined menu, such as the speed at which the focal length of the camera lens is moved when a zooming operation is performed (Column 5, Lines 36-46). Using a displayed menu for selecting a camera's operating settings makes the camera easier to operate by reducing the number of operation switches (Column 1, Lines 18-28; Column 1, Line 65 - Column 2, Line 3). In view of the teaching in Shimizu it would have been obvious to one of ordinary skill in the art at the time of the invention to configure the menu of

Kawanami so as to serve as a setting means operated upon by a user for selecting a desired setting time among a plurality of items displayed on the predetermined menu and setting a condition regarding the motion direction of the lens group, in order to reduce the number of operating switches and make the camera easier to use.

Regarding Claim 9, Kawanami and Shimizu disclose that the lens unit is made removable relative to the main body of the image pickup apparatus (Kawanami; Column 5, Line 25).

Regarding Claim 10, Kawanami and Shimizu disclose that the ring member is disposed concentrically about an optical axis of the lens group (Kawanami; Figure 5).

7. Claims 38 and 49 are rejected under 35 USC 103(a) as being unpatentable over Sato et al. in view of Kawanami.

Regarding Claim 38, Sato et al. disclose all of the limitations except that of the lens unit being removably mounted. However Kawanami teaches that such a design is well known in the art (Column 1, Lines 19-22). Enabling the lens unit of Sato et al. to be removably mounted would clearly increase the utility of the device by permitting the use of other zoom lens units thereby providing a greater variety of zooming options. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to make the lens unit in Sato et al. removably mounted in order to increase the utility of the device by providing a greater variety of zooming

options.

Regarding Claim 49, Sato et al. disclose all of the limitations except that of the lens unit being removably and exchangeably mounted. However Kawanami teaches that such a design is well known in the art (Column 1, Lines 19-22). Enabling the lens unit of Sato et al. to be removably and exchangeably mounted would clearly increase the utility of the device by permitting the use of other zoom lens units thereby providing a greater variety of zooming options. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to make the lens unit in Sato et al. removably and exchangeably mounted in order to increase the utility of the device by providing a greater variety of zooming options.

8. Claims 42-43 are rejected under 35 USC 103(a) as being unpatentable over Takahashi in view of Haraguchi et al.

Regarding Claim 42, Takahashi discloses an image pick-up apparatus comprising a ring member (51) disposed concentrically about a lens optical axis of a lens unit, a detecting means for detecting a change amount of rotation of the ring member (Column 9, Lines 1-14), and a control means for performing motion/stop control of the magnification lens group along the optical axis in accordance with a detection result by the detection means (Column 9, Lines 15-49).

Takahashi does not disclose an inhibition means for inhibiting the magnification lens to stop during a predetermined period after the ring member stops rotating. However Haraguchi et

al. disclose inhibiting a magnification lens from stopping during a predetermined period after a stop command has been issued so that the lens can be stopped more precisely at a desired termination position (Column 23, Line 63 - Column 24, Line 2). In view of the teaching in Haraguchi et al. et al. it would have been obvious to one of ordinary skill in the art at the time of the invention to provide in Takahashi an inhibition means for inhibiting the magnification lens to stop during a predetermined period after the ring member stops rotating in order to more precisely perform the stopping operation.

Regarding Claim 43, Takahashi and Haraguchi et al. disclose that the lens unit is removably and exchangeably mounted on a main body of the image pickup apparatus (Takahashi; Column 2, Line 46).

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 308-9051 (for formal communication intended for entry)

Or:

(703) 308-5359 (for informal or draft communications; please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry regarding this communication or earlier communications from the examiner should be directed to Andy Christensen whose telephone number is (703) 308-9644.

If attempts to reach the examiner by telephone are unsuccessful the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

The fax number for this group is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.


Wendy Garber
Supervisory Patent Examiner
Technology Center 2700

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July 28, 1999